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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 989,997	11 21 2001	Masayuki Katogi	I-15604	2453

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EXAMINER

ZEADE, BERTRAND

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 07/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/989,997

Applicant(s)

KATOGL ET AL.

Examiner

Bertrand Zeade

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 U.S.C. § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turnbull et al. (U.S.6,132,072) in view of Chapman et al. (U.S.5,984,494).

Turnbull ('072) discloses LED assembly having:

Regarding claim 1, a plurality of color light sources (14) for emitting lights of at least two different color (see fig. 16); a control unit (22) for controlling the plurality of color light sources (see figs. 1 and 16); a light mixing means or diffuser (29) for mixing the lights emitted from the plurality of color light sources (see figs. 1-2 and 16) to produce an illumination light; and a control (22) operable to change a value of a value of a variable.

Regarding claim 2, the color illumination device (see fig. 21) has a second functional mode in which the color of the illumination light is changed periodically in a predetermined pattern and

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the value of the variable determines a cycle of the periodic light color change, and wherein the color illumination device further includes a switch or controller (22) operable to select one of the functional modes of the color illumination device (see figs. 5-11).

Regarding claim 4, the color illumination device wherein the control unit (22) includes a memory (U2) for storing the color of the illumination light being produced; and a detector or microprocessor (U1) for detecting an operation of the control (22).

Regarding claim 7, the plurality of color light sources include a red LED set having a series-connected plurality of red LEDs, a green LED set having a series-connected plurality of green LEDs, and a blue LED set having a series-connected plurality of blue LEDs, and wherein the control unit (22) includes a first, second and third switching elements each connected in series to an associated one of the red, green and blue LED sets, and a CPU for controlling the first, second and third switching elements (see figs. 7, 16, 21).

Regarding claim 8, the light mixing means includes a first light diffusing member (29) and a second light diffusing member (28) interposed between the first light diffusing member (29) and the plurality of color light sources (see fig. 2, 16), the second light diffusing member having a light transmissive property.

Regarding claim 9, the first light diffusing member (29) includes a cover (27) having a light transmissive property.

Regarding claim 10, a color illumination device for producing light of various colors, including a plurality of color light sources or LEDs (14) for emitting lights of a least two different

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colors; a control unit (U2) for controlling the plurality of color light sources (14) a light mixing means (see fig. 9, 21) for mixing the lights emitted from the plurality of color light sources (14,114) to produce an illumination light; and a control operable by a user, wherein the color illumination device has at least two functional modes (see figs. 4C, 5-6) and a function of the control is defined for each functional mode, and wherein the color illumination device further comprises a switch operable to select one of the at least two functional modes.

Regarding claim 11, the control is adapted to change a value of a variable, and the value of the variable is converted in an operation parameter defined for each of the functional modes (see figs. 4C, 5-6).

Regarding claim 12, the at least two functional modes comprise a first functional mode in which the value of the variable is converted into a color of the illumination light (see figs. 4C, 5-21).

Regarding claim 13, the at least two functional modes comprise a second functional mode in which the color of the illumination light is changed periodically in a predetermined pattern, and the value of the variable is converted into a cycle of the periodic light color change (see figs. 4C, 5-21).

Regarding claim 14, the switch is adapted to provide the control unit with a signal for indicating that the switch is operated, and in response to the signal from the switch, the control unit (U2) causes a current functional mode to switch to a next functional mode in a predetermined order of the functional modes (see figs. 4C, 5-21).

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Turnbull ('072) does not disclose a first functional mode.

Chapman ('494) discloses a light shield for an illumination system having:

Regarding claim 1, wherein the color illumination device has a first functional mode (24) in which the value of the variable determines a color of the illumination light (figs. 3a-3c).

Regarding claim 3, wherein when the functional mode is changed from the second functional mode (26) to the first functional mode (24) by an operation of the switch (44), the illumination light color effected in the second functional mode (26) at the time of the switch (44) operation for the functional mode change is maintained in the first functional mode (24) until the control is operated a new after the functional mode change (see figs. 3a-3c).

Regarding claim 5, the color illumination device further having a third functional mode (30) which is different from the first and second functional modes, wherein the switch includes two different states associated with the first and second functional modes, respectively and wherein in a case that the state of the switch (44) is changed when the color illumination device is in the first functional mode and returned to an original state within a predetermined time period, the color illumination device enters the third functional mode (see figs 2-3c.).

Regarding claim 6, the third functional mode (30), the color illumination device repeatedly turns on and off at a predetermined cycle, and the value of the variable determines a duration time of the turning on of the color illumination device (see figs. 2-3c).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the LED assembly of Turnbull ('072) with the first functional mode disclosed by Chapman

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(494) for the benefit and advantage to provide a modular light source particularly suited for use as aircraft landing lights, mobile land vehicle headlights, indoor or outdoor area illumination, and for use in like devices, because a dual spectrum illumination system is comprised of two independent modular sources of illumination. Upon activation by an operator or user, the selected light source provides a high intensity beam of visible light.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bertrand Zeade whose telephone number is 703-308-6084. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea, can be reached on (703) 305-4939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9318.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Examiner: Bertrand Zeade

January 7, 2003.

